

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Original)** A condensation heat exchanger, which comprises two coaxial tube bundles (2a, 2b), one of which acts as primary exchanger and the other of which acts as secondary exchanger, each of these bundles consisting of a tube or of a group of tubes arranged end-to-end, forming a helical coil, in which the wall of the tube(s) is produced from a material that is a good conductor of heat and has a flattened, oval cross section, the major axis of which is perpendicular or approximately perpendicular to the axis (X-X') of the helix, while the width of the gap separating two adjacent turns is constant and, particularly, smaller than the thickness of said cross section, said bundles (2a, 2b) being mounted securely inside a gas-impermeable jacket (1), means being provided in order to circulate at least one fluid to be heated, such as cold water, inside the tube(s) forming said bundles (2a, 2b), said jacket (1) having a gas-evacuation sleeve (122), the exchanger being arranged in such a way that a first hot gas - called principal hot gas - is let into said jacket (1) and channeled therein in such a manner that it flows radially, or approximately radially, through said bundles, passing through the gaps separating its turns, a deflection system (7) also being interposed between these two bundles and arranged in such a manner that this principal hot gas first flows through the primary exchanger (2a), passing between the gaps separating its turns from the inside to the outside, then flows through the secondary exchanger (2b), passing between the gaps separating its turns from the outside to the inside, after which it is evacuated to the outside via said sleeve (122), characterized in that, on the one hand, said deflection system (7) is composed of two plates (7a, 7b) called deflection plates, produced from a thermally insulating material, and in that, on the other hand, it includes means for introducing a second hot gas - called additional hot gas - inside said jacket (1) between the two thermally insulating deflection plates (7a, 7b) and to channel it such that it flows directly, radially or approximately radially, through the secondary exchanger (2b), passing between the gaps

separating its turns from the outside to the inside, either alone or at the same time as the principal hot gas that has already flown through the turns of the tube bundle (2a) acting as primary exchanger, after which it is evacuated to the outside via said sleeve (122).

2. **(Original)** A condensation heat exchanger, associated with a gas or fuel-oil burner (6), which comprises two coaxial tube bundles (2a, 2b) placed end-to-end, one of which acts as primary exchanger and the other of which acts as secondary exchanger, each of these bundles consisting of a tube or of a group of tubes arranged end-to-end, forming a helical coil, in which the wall of the tube(s) is produced from, a material that is a good conductor of heat and has a flattened, oval cross section, the major axis of which is perpendicular or approximately perpendicular to the axis (X-X') of the helix, while the width of the gap separating two adjacent turns is constant and, particularly, smaller than the thickness of said cross section, said bundles (2a, 2b) being mounted securely inside a gas-impermeable jacket (1), means being provided in order to circulate at least one fluid to be heated, in particular cold water, inside the tube(s) forming said bundles (2a, 2b), said jacket (1) having a burnt-gas-evacuation sleeve (122), the exchanger being arranged such that the hot gases generated by the burner (6) flow radially, or approximately radially, through said bundles, passing through the gaps separating its turns, a deflection system (7) also being interposed between these two bundles and arranged in such a manner that the hot gases generated by the burner first flow through the primary exchanger (2a), flowing through the gaps separating its turns from the inside to the outside, then the secondary exchanger (2b), flowing through the gaps separating its turns from the outside to the inside, after which they are evacuated to the outside via said sleeve (122), characterized in that, on the one hand, said deflection system (7) is composed of two plates (7a, 7b), called deflection plates, produced from a heat-refractory, thermally insulating material, for example based on ceramics, centered on said axis of the helix (X-X'), arranged in parallel, side-by-side, with a certain spacing, and one (7a) of which closes one side of the tube bundle (2a) acting as primary exchanger, while the other closes the adjacent side of the tube bundle (2b) acting as secondary exchanger, and in that, on the other hand, the wall of the jacket (1) is penetrated by a line (8) fitted to convey an additional hot gas from the outside to the inside of the jacket (1), into the space (Q) between these two plates (7a, 7b) such that this hot gas can flow through the gaps separating

the turns of the tube bundle (2b) acting as secondary exchanger from the outside to the inside, either alone or at the same time as the hot gases generated by the burner that have already flowed through the turns of the tube bundle (2a) acting as primary exchanger, after which they are evacuated toward the outside via said sleeve (122).

3.-12. **(Canceled)**